



Chapter 7

TRANSPORTATION SYSTEM PLAN: ARTERIAL STREETS AND HIGHWAYS AND OTHER STREETS

INTRODUCTION

This chapter presents the arterial street and highway system or transportation plan for the City to the year 2010 (or Phase I of the City plan as described in Chapter 8) and, for some roadway segments, beyond that planning period. The City's transportation plan is based, in part, upon the transportation system Objective 10 of Chapter 6. In addition, the arterial street and highway system plan is also based, in part, upon the adopted year 2000 regional transportation plan prepared by the Southeastern Wisconsin Regional Planning Commission. More detailed aspects of the transportation plan are illustrated in the various detailed plan designs for special planning districts, neighborhoods, and planning areas (subneighborhoods) of Chapter 8 of this Plan. In this respect, some of the various right-of-way widths for certain arterial street and highway segments represent transportation needs extending beyond the year 2010.

The transportation plan for streets and highways is organized on a functional basis and consists of arterial, collector and land access, or minor streets. The arterial streets are arranged so as to facilitate ready access from the various residential areas of the City to centers of employment, governmental services, shopping and services, and recreation both within and beyond the boundaries of the City. The arterial streets also are integrated with, and related to, both the existing and proposed regional system of arterial streets and highways.

During the preparation of this Plan, the Southeastern Wisconsin Regional Planning Commission was also in the process of updating both the regional land use and transportation systems plans to meet the needs of the southeastern Wisconsin region, including the City of Franklin, to the year 2010. Upon completion and adoption of the regional transportation system plan, the City should reexamine the transportation system plan set forth in this chapter to determine if any amendments are necessary.

YEAR 2000 AND 2010 ARTERIAL STREET AND HIGHWAY SYSTEM REQUIREMENTS

The arterial street and highway system plan for the City of Franklin for the year 2010 is illustrated on Map 7.1. Map 7.1 indicates state trunk highways, county trunk highways, and local trunk highways and their planned number of traffic lanes and right-of-way widths. Table 7.1 indicates the existing 1987 and forecast year 2000 average weekday traffic volumes on arterial streets and highways in the City. The arterial street and highway facilities required to serve the probable future traffic demands within the City are as recommended in the adopted year 2000 regional land use and transportation plan with several exceptions and additions. These exceptions and additions are as follows:

1. The adopted regional transportation system plan, since it is a plan produced for implementation at a regional scale, does not indicate the planned right-of-way widths for arterial streets and highways at a local level. Since the City's Plan must deal with these planned rights-of-way for the approval of site plans, subdivision plats, and certified survey maps, as well as for the purposes of detailed planning at the local level, it is of extreme importance for the City to plan for these rights-of-way in advance of development. Therefore, the regional transportation system plan, as it affects the City of Franklin, has been refined in greater detail here.
2. Under the this Comprehensive Master Plan, U.S. Public Land Survey Sections 25, 26, and 36 (or the area generally bounded by S. 27th Street on the east, STH 100 on the north, S. 60th Street on the west, and Oakwood Road on the south) are planned for a mix of industrial, trucking, office, commercial, and residential uses. In order to relieve potential future traffic congestion within this area, as well as both S. 27th Street and STH 100, a new arterial street segment is proposed as S. 51st Street, extended from STH 100 to Oakwood Road. In addition, the plan calls for an increased 130-foot right-of-way for Oakwood Road as it extends from S. 27th Street to the planned extension of S. 51st Street.

The S. 51st Street extension is not a new concept and, in fact, was a part of the 1990 Milwaukee County jurisdictional highway plan. More recently, it was also advanced by SEWRPC in their Community Assistance Planning Report No. 138 titled A Development Plan for the Franklin Industrial Park Neighborhood (July 1988).

Table 7.1

**EXISTING 1987 AND FORECAST YEAR 2000 AVERAGE
WEEKDAY TRAFFIC VOLUMES ON ARTERIAL STREETS
AND HIGHWAYS IN THE CITY OF FRANKLIN**

<u>Segment</u>	<u>Number of Vehicles</u>	
	<u>1987 Actual</u>	<u>2000 Forecast</u>
W. Rawson Avenue:		
W. Forest Home/STH 100	3,710	6,000
STH 100/STH 36	5,680	8,000
S. 76th St./S. 51st St.	10,410	12,000
S. 51st St./S. 27th St.	10,930	14,000
W. Drexel Avenue:		
S. 76th St./S. 51st St.	3,500	5,000
S. 51st St./S. 27th St.	1,370	2,000
W. Puetz Road:		
STH 100/S. 76th St.	N/A	5,000
S. 51st St./S. 27th St.	840	9,000
STH 100:		
N. City Limits/W. Rawson Ave.	15,430	18,000
W. Rawson Ave./STH 36	10,260	13,000
STH 36/S. 76th St.	7,410	10,000
S. 51st St./S. 27th St.	10,000	14,000
STH 36:		
W. City Limits/STH 100	10,990	12,000-13,000
STH 100/W. Drexel Ave.	8,710	11,000
W. Drexel Ave./W. Rawson Ave.	11,000	13,000
West Woods Road:		
W. City Limits/W. Forest Home Ave.	2,330	2,400
St. Martins Road:		
W. City Limits/W. Forest Home Ave.	2,370	4,000
W. Forest Home Ave./STH 100	3,128	5,000

Table 7.1 (continued)

**EXISTING 1987 AND FORECAST YEAR 2000 AVERAGE
WEEKDAY TRAFFIC VOLUMES ON ARTERIAL STREETS
AND HIGHWAYS IN THE CITY OF FRANKLIN**

<u>Segment</u>	<u>Number of Vehicles</u>	
	<u>1987 Actual</u>	<u>2000 Forecast</u>
W. Forest Home Avenue:		
W. City Limits/St. Martins Rd.	5,090	9,000
St. Martins Rd./N. City Limits	12,220	14,000
W. Ryan Road:		
STH 45-36/STH 100	1,960	3,000
S. 76th Street:		
S. City Limits/STH 100	2,990	3,000
STH 100/W. Puetz Rd.	4,300	6,000
W. Puetz Rd./W. Drexel Ave.	4,300	11,000
W. Drexel Ave./W. Rawson Ave.	8,180	16,000
S. 51st Street:		
STH 100/ W. Puetz Rd.	740	3,000
W. Puetz Rd./W. Drexel Rd.	2,100	3,000-6,000
W. Drexel Ave./W. Rawson Rd.	2,220	3,000-6,000
W. Rawson Ave./N. City Limits	2,880	6,000
S. 27th Street:		
S. City Limits/W. Oakwood Rd.	4,600	9,000
W. Oakwood Rd./STH 100	4,600	11,000
STH 100/W. Puetz Rd.	7,960	16,000
W. Puetz Rd./N. City Limits	10,690-19,610	16,000-25,000

N/A: Not Available

Source: Wisconsin Department of Transportation, SEWRPC, and Lane Kendig, Inc.

The transportation system requirements map also indicates the recommended number of traffic lanes needed for each arterial street segment in the City of Franklin to carry the anticipated arterial traffic volumes through the year 2010. In this respect, the total number of required lanes for the four-lane cross-sections represent driving lanes and do not include two attendant parking lanes which would also be provided. Thus, the total number of potential driving lanes for the four-lane arterials could be six if parking was ultimately restricted from these arterials. Table 6.4 in Chapter 6 sets forth the cross-section design criteria for the types of cross sections which could be used to accommodate the recommended number of traffic lanes shown on Map 7.1.

As can be noted through an examination of the various detailed plans presented in Chapter 8, this Plan proposes to limit direct vehicular access of building sites to arterial streets and highways by backing lots against the arterials with vehicular service being provided by a second abutting and parallel collector or minor street. This type of design will promote traffic safety and protect the capacity of the arterial street and highway system.

OTHER COLLECTOR AND MINOR LAND ACCESS STREETS

The transportation system plan for the City's collector and local street system is set forth in the various detailed plans for special planning districts, neighborhoods, and planning areas (subneighborhoods) presented in Chapter 8. Table 6.4 in Chapter 6 sets forth the cross-section design criteria for the types of cross sections which are to be used for the design of both collector and minor land access (including cul-de-sac) streets in the City.

Collector streets are arranged so as to provide for the ready collection and distribution of traffic from and to the various areas of the City and for conveyance of traffic to and from the arterial street and highway system. For the most part, collector streets are related to special traffic generators such as schools, churches, shopping centers, and other existing or planned concentrations of population or activities, and to the arterial street and highways to which they connect.

The existing and planned land access, or minor street, network is designed to accomplish the following:

1. Achieve an efficient use of land;
2. Discourage, to the extent possible, use of such streets by through traffic;
3. Minimize street area and stormwater runoff from such streets;

4. Provide an attractive setting for both residential and nonresidential development;
5. Facilitate the provision of effective and efficient stormwater drainage;
6. Facilitate the provision of effective and efficient public sewerage and water supply systems; and
7. Fit the natural terrain, thereby minimizing the need for earthwork during the land development and construction process.

Both the collector and minor streets which are illustrated in Chapter 8 of this Plan are based upon the careful consideration of a number of important factors. These include soil characteristics, topography, property boundaries, the hierarchy of street function within the total street system, existing and proposed land uses, the principles of sound planning practice, and the various design criteria presented earlier in Chapter 6.